

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

Claims 1-6(withdrawn).

7(currently amended). A method for ~~designing~~ preparing an alloy, which comprises:

a) determining the effective charge number  $z$  of said alloy, wherein  $z$  is between -1 and 1;

b) selecting  $I$  types of constituent metals wherein  $I$  is an integer greater than 1; and

c) calculating the mole fraction  $x_i$  of each constituent metal according to the following formula:

$$z = \sum_i x_i z_i$$

$$x_1 + x_2 + \dots + x_I = 1$$

wherein  $z_i$  is the effective charge number of the  $i^{\text{th}}$  constituent metal,

d) mixing said  $I$  types of constituent metals according to the mole fractions of Step c) and melting the mixture to form an alloy[[]], provided that the constituent metals are selected from the group consisting of Co, Ni, Al, Mg and Zn, and further provided that the alloy is not a binary alloy of Co and Ni.

8(new). The method of claim 7 wherein the formed alloy is composed of 0.0769 mole fraction of Al and 0.9231 mole fraction of Mg.

9(new). The method of claim 7 wherein the formed alloy is composed of 0.1177 mole fraction of Ag and 0.8823 mole fraction of Mg.

10(new). The method of claim 7 wherein  $I$  is 2 or 3.